

Sub EI  
27. (Amended Twice) A method for making a plurality of different reagent

mixtures comprising blood and analyzing particle distributions of the reagent mixtures, wherein each reagent mixture corresponds to a respective operator input, and the method is performed with an apparatus having at least one pump, at least one reagent chamber containing at least one [or more of a plurality of] lysing agent[s], a sensing unit defining a counting orifice for receiving a reagent mixture and analyzing a particle distribution of the reagent mixture, and a control unit responsive to each operator input to control the at least one pump [and sensing unit] to make a respective reagent mixture having a volumetric ratio of the at least one lysing agent to blood corresponding to the respective operator input, and to further control the sensing unit to analyze a particle distribution of the reagent mixture, the method comprising the following steps:

adjusting the volumetric ratio of the at least one lysing agent to blood in response to an operator input to correspond to the respective operator input and thereby form a predetermined reagent mixture corresponding to the respective operator input; said adjusting including:

[in response to each operator input,] selecting at least one [or more of a plurality of] lysing agent[s] corresponding to the respective operator input;

pumping with the at least one pump a predetermined volume of the at least one [selected] lysing agent corresponding to the respective operator input;

pumping with the at least one pump a predetermined volume of at least one other reagent mixture component comprising blood and corresponding to the respective operator input;

(1)

intermixing the predetermined volumes of the at least one lysing agent and the at least one other reagent-mixture component comprising blood, and in turn creating [a] the predetermined reagent mixture corresponding to the respective operator input; and introducing the predetermined reagent mixture through the counting orifice of the sensing unit and sensing a particle distribution of [the] said reagent mixture.

Sub E2

35. (Amended) An apparatus for making a plurality of reagent mixtures comprising blood and analyzing particle distributions of the reagent mixtures, comprising:

at least one pump;

at least one reagent chamber coupled in fluid communication with the at least one pump and containing at least one lysing agent;

a sensing unit defining a counting orifice for receiving a reagent mixture and analyzing a particle distribution of the reagent mixture; and

means for [selecting] adjusting the volumetric ratio of blood to the at least one lysing agent for creating a plurality of different reagent mixtures, each corresponding to a different operator input, and for controlling the at least one pump in response to each operator input to pump predetermined volumes of blood and the at least one lysing agent in accordance with the blood/lysing agent ratio corresponding to the respective operator input, said means further controlling the at least one pump to

(i) intermix the predetermined volumes of blood and the at least one lysing agent and thereby create the reagent mixture corresponding to the respective operator input, and

(2)

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(ii) introduce the reagent mixture through the counting orifice of the sensing unit for sensing a particle distribution of the reagent mixture.

Please add the following new claims:

36. (New) A method as defined in claim 27, wherein:  
the respective operator input is indicative of the species of the blood; and  
the adjusted volumetric ratio of the at least one lysing agent to blood corresponds to the indicated species of the blood.

37. (New) An apparatus as defined in claim 35, wherein:  
the respective operator input is indicative of the species of the blood; and  
the adjusted volumetric ratio of the at least one lysing agent to blood corresponds to the indicated species of the blood.

38. (New) An apparatus for making a plurality of reagent mixtures for multi-species hematology testing, and for sensing particle distributions of the mixtures for multi-species hematology analysis, comprising:

at least one reagent chamber for containing at least one lysing agent;

at least one pump coupled in fluid communication with the at least one reagent chamber;

at least one valve coupled in fluid communication with the at least one pump for introducing a blood specimen;